

Clinical Education: Expanded Functions

Table 8. Educational Parameters of the Clinical Component of the Expanded Functions Dental Assisting Curriculum: Procedures		
Unit	Title	Number of Tasks
10	Finishing and Polishing Amalgam Restorations Procedure	53
11	Polishing Composite Restorations Procedure	32
12	Coronal Polishing Procedure	48
13	Placing a Preformed Aluminum Temporary Crown Procedure	28
14	Placing a Preformed Plastic Temporary Crown Procedure	31
15	Placing a Custom Resin Temporary Crown Procedure	22
16	Obtaining an Alginate Impression Procedure	57
17	Pit and Fissure Sealants	33
Total		304

Note: “Aiding in the Administration of Nitrous Oxide” is listed as an Expanded Function in the Laws and Administrative Rules of the Idaho State Board of Dentistry. There is no clinical component for nitrous oxide.

“Obtaining an Alginate Impression” is not listed as an Expanded Function in the Laws and Administrative Rules of the Idaho State Board of Dentistry but has been included in the Clinical Component of the Expanded Functions Dental Assisting Curriculum.

10.0 Finishing and Polishing Amalgam Restorations Procedure

- I) Tasks to Master = 53.
- II) Intended Outcome: Given the necessary supplies and equipment for finishing and polishing amalgam restorations, the student will perform the following tasks on six typodont or natural teeth with 100% accuracy. (Note: Three of the amalgam restorations must be a Class II restoration.)
- III) Tasks:
 - (1) Take universal precautions.
 - (2) Assemble the finishing and polishing amalgam restorations tray set up. (Note: In an actual office practice you may find some of these items are not used.)
 - (a) Mouth mirror.
 - (b) Slow-speed handpiece.
 - (c) Cotton rolls.
 - (d) Cotton pliers.
 - (e) High volume evacuator.
 - (f) Saliva ejector.
 - (g) 3-way syringe.
 - (h) Green stone.
 - (i) 12-blade round finishing bur (#4 or #6).
 - (j) 32-blade round finishing bur (#4 or #6).
 - (k) Abrasive rotary disk (coarse).
 - (l) Mandrel for the disk.
 - (m) Discoid/cleoid (sharp).
 - (n) ½-Hollenbeck (sharp).
 - (o) Finishing strip (coarse).
 - (p) Articulating paper.
 - (q) Articulating paper holder.
 - (r) Dental floss.
 - (s) #1/2 or #1 round bur.
 - (3) Seat the patient.
 - (4) Review the patient's medical history. Medical history is reviewed with parent if the patient is a minor.
 - (5) Explain the dental procedure to the patient.

- (6) Add the following 10 items to the above armamentarium list to polish an amalgam restoration with pumice and tin oxide/Shofu® points.

- (a) Prophyl angle.
- (b) Two prophyl cups.
- (c) Flour of pumice.
- (d) Tin oxide powder (anhydrous).
- (e) Dental tape.
- (f) Ethyl alcohol.
- (g) Dappen dish.
- (h) Brownie® points and cups.
- (i) Greenie® points and cups.
- (j) Super Greenie® points and cups.

- (7) Evaluate the selected restoration for polishing.
- (8) Check for fracturing of the restoration or tooth that compromises the integrity of the tooth or restoration that cannot be modified by finishing.
- (9) Check for adequate interproximal contact if the restoration is a Class II.
- (10) Check that the occlusal contact and marginal ridges are not below the plane of occlusion.
- (11) Check that the margins are not below the cavosurface beyond modification (ditching due to marginal fracture or inadequate fill).
- (12) Check the centric occlusion by first, drying the teeth, and then, having the patient tap his teeth together on articulating paper held with the articulating paper holder.
- (13) Check the markings for any marks that are not uniform when compared to the markings on adjacent teeth.

(Note: If there are no marks, the tooth is out of centric occlusion and should be evaluated by the instructor before the student proceeds with the finishing procedure. If the marks are uniform and the patient reports no discomfort when biting, no adjustment of centric occlusion need be made. If the marks are not uniform the darker marks must be adjusted until they are uniform in color with the rest of the centric marks on that restoration and adjacent teeth. The dental assistant is not permitted to remove tooth structure.)

- (14) Check the markings on the tooth during eccentric movement by having the patient grind side-to-side and front-to-back while the

articulating paper is held between the teeth.

(Note: If no marks are present, the restoration does not contact during eccentric movement and no occlusal adjustment is necessary. If the marks are uniform and the patient reports no discomfort the restoration needs no adjustment. If the marks are not uniform and/or the patient reports discomfort, the restoration might need adjustment. This must be evaluated by the supervising dentist before the dental assistant proceeds with the finishing procedure.)

- (15) Isolate the tooth with the restoration to be polished by cotton rolls or a rubber dam.
- (16) Place the green stone in the slow-speed handpiece and evaluate and adjust the restoration for any occlusal excess in the form of flash at the cavosurface margins, or on the slopes of the cusps where recontouring will render a more optimal anatomy.
- (17) Place the #1/2 or #1 round bur in the slow-speed handpiece and define the developmental grooves and fissure and the triangular fossae.
- (18) Place the #4 or #6 round finishing bur in the slow speed handpiece and use it to smooth the occlusal cavosurface margins.

(Note: Half of the bur should rest on the enamel and half should rest on the amalgam surface. Movement should be a smooth sweeping stroke of the bur running in reverse and repeated until a satiny, uniform surface is obtained free of deep scratches.)

- (19) Smooth the occlusal surface.

(Note: Work in several small areas until the entire surface is uniform using the same sweeping, intermittent stroke.)

- (20) Place the mandrel for the rotary abrasive disk in the slow-speed handpiece, attach the disk, and proceed to finish the interproximal areas.

(Note: The handpiece should be set so the disk spins away from the soft tissue to prevent inadvertent gingival injury.)

- (21) Use the finishing strip to smooth the proximal cavosurface margins.

(Note: Care should be taken to avoid soft tissue injury, particularly

to the lips and interproximal gingiva.)

- (22) Smooth the facial and lingual surfaces of the restoration.
- (23) Use an abrasive disk to smooth the convex surfaces.
- (24) Use a finishing bur to smooth the concave surfaces.
- (25) Begin the polishing procedure by mixing the flour of pumice to a creamy consistency in a dappen dish.
- (26) Using a Prophyl cup on a prophyl angle, pumice all the restoration surfaces. (Note: The handpiece should be used in intermittent strokes at a slow rate in order to avoid the build-up of friction.)
- (27) Determine when the pumicing step is finished by the satiny smooth appearance of the restoration. (Note: The restoration will appear to be uniformly polished to a smooth, burnished appearance with no deep scratches or marring marks present.)
- (28) Use the dental tape to pumice the interproximal surfaces of the restoration.
- (29) Rinse and floss all the residue of pumice from the mouth.

(Note: Any remaining residue can damage the interproximal surfaces of teeth and can interfere with the polishing procedure.)
- (30) Polish with tin oxide powder that has been mixed in a clean dappen dish with water or ethyl alcohol.
- (31) Use a new prophyl cup to polish the restoration in order to prevent pumice residue in the cup from marring the new amalgam surface.
- (32) Use the same stroke that was used during the pumice procedure with the tin oxide but with the hand piece run at a faster speed.
- (33) Buff the tin oxide into the interproximal areas with dental tape.
- (34) Check the final polish. (Note: The restoration will have a mirror-like finish.)
- (35) Rinse the residual tin oxide thoroughly from the mouth.
- (36) If it is desired, use dry tin oxide to exact an even higher shine.
- (37) Polish with abrasive points and cups. (Note: Shofu® Points and Cups will be used for this procedure; however, there are other rubber or silicone abrasive polishing point and cup systems

available.)

- (38) Place the Brownie® cup in the hand piece and run at a slow-speed over all convex surfaces of the restoration.
- (39) Employ an on-and-off motion while using all abrasive points/cups in order to avoid overheating the tooth.
- (40) Place the Brownie® point in the slow-speed handpiece and run in the same manner as the cup in the concave surfaces of the restoration.
- (41) Check to make sure that the surface appears velvety smooth, with no individually noticeable scratches.

(Note: A Greenie® cup (and then point) is used in the same fashion that the Brownie® cup and point were used. The surface should again appear uniformly polished with no obvious scratches or pits. It should appear much shinier.)

- (42) First, place a Super Greenie® point and then a Super Greenie® cup in the slow speed handpiece and, with the same on-off touch, run at the highest speed possible with the slow-speed handpiece.

(Note: If the amalgam is allowed to heat excessively at this point, mercury will rise to the surface which will compromise the final shine and weaken the surface.)

- (43) Check to make sure that the restoration has a mirror-like finish.
- (44) Clear the oral cavity of all debris from the finishing and polishing procedure.
- (45) Evaluate the polished tooth to determine if the crucial parts of the filling have been preserved in the polishing procedure.
- (46) Check that all margins of the restoration are flush with the cavosurface.
- (47) Check that the overall contour is appropriate, the contacts have been maintained, and the grooves and fissures are defined.
- (48) Check that the entire surface is smooth, has a mirror-like appearance, and no pits or scratches are detectable.
- (49) Check that there is no damage to the adjacent tooth surfaces and that appropriate occlusal contacts have been maintained.)

- (50) The date is recorded.
- (51) The entry is written in ink.
- (52) Student signs record of services.
- (53) Instructor initials the record of services.

11.0 Polishing Composite Restorations Procedure

- I) Number of Tasks to Master = 32.
- II) Intended Outcome: Given the necessary supplies and equipment to polish composite restorations, the student will perform the following tasks on six typodont or natural teeth with 100% accuracy. (Note: Three of the composite restorations must be a Class II with an interproximal contact.)
- III) Tasks:
 - (1) Take universal precautions.
 - (2) Assemble the polishing composite restorations tray set up. (Note: In an actual office practice you may find some of the items are not used)
 - (a) Slow-speed handpiece.
 - (b) Appropriate mandrels and disks, cups, or points for the particular system of abrasive polishing materials to be used.
 - (c) Diamond polishing paste.
 - (d) Mouth mirror.
 - (e) Explorer.
 - (f) Air/water syringe.
 - (g) Articulating paper and holder.
 - (h) Finishing strips.
 - (i) White stone.
 - (j) Prophyl angle.
 - (k) Prophyl cup.
 - (l) 2 x 2 inch gauze.
 - (m) Cotton rolls.
 - (n) Unfilled resin bonding agent or a commercial composite sealer.
 - (o) Curing light.
 - (3) Seat the patient.
 - (4) Review the patient's medical history. Medical history is reviewed with parent if the patient is a minor.
 - (5) Explain the dental procedure to the patient.
 - (6) Determine if the restoration is acceptable for polishing.
 - (7) Check if the interproximal contacts are properly adapted to the adjacent tooth and the occlusal contacts are correct.
 - (8) Check for microleakage around the restoration.

- (9) Check for ditching or microfracturing at the cavosurface margins.
- (10) Check to determine if there is evidence of impact fracturing in the surface of the restoration.
- (11) The coarse disk is placed on the mandrel and the convex areas of the restoration are polished until they have reached a uniform smoothness with no obvious deep scratches or gouges.
- (12) The coarse points or cups are placed on the mandrel and the concave areas of the restoration are polished to a uniform smoothness with no obvious deep scratches or gouges.
- (13) Using the articulating paper, check to ensure that the optimal occlusal contacts have not been lost.
- (14) The medium disk and cup or point is then used in a like manner as above. (Note: The result should be significantly more glossy.)
- (15) Check to ensure the occlusal contacts are still undisturbed.
- (16) Using fine and very fine disks and cups or points to achieve the smoothest and glossiest surface possible. (Note: Again, the articulating paper is used between each grit size.)
- (17) The prophyl angle and a prophyl cup are attached to the handpiece and a small amount of the diamond polishing paste is dispensed into a dappen dish and carried to the restoration.
- (18) The restoration is then polished to a high luster with the diamond polishing paste.
- (19) The restoration is rinsed and dried.
- (20) The restoration and the cavosurface margins of the restoration are re-etched with 30% to 37% phosphoric acid gel for 15 seconds and thoroughly rinsed with copious amounts of water for 10 seconds.
- (21) Unfilled resin (bonding agent) or a commercially prepared composite sealer is brushed over the entire surface of the restoration and the cavosurface margins.
- (22) The sealer is then air thinned with the air/water syringe and cured for 10 to 20 seconds with the curing light.
- (23) Evaluate the polished tooth to determine if the crucial parts of the filling have been preserved in the polishing procedure.

- (24) Check if the interproximal contacts of the restoration have been maintained.
- (25) Check if the occlusal contact is adequate in centric occlusion.
- (26) Check if there are any eccentric occlusal contacts that must still be removed.
- (27) Check the restoration surface to ensure the polish has been performed accurately and if there have been any inadvertent gouges or scratches introduced during the polishing process.
- (28) The instructor will evaluate the polished restoration.
- (29) The date is recorded.
- (30) The entry is written in ink.
- (31) Student signs record of services.
- (32) Instructor initials the record of services.

12.0 Coronal Polishing Procedure

- I) Number of Tasks to Master = 48.
- II) Intended Outcome: Given the required armamentarium, didactic information, and a dental unit, the student will perform the following tasks on three adult patients and three children with mixed dentitions and with 100% accuracy.

(Note: Adult patients must have a minimum of 28 teeth with no supragingival calculus on the teeth, and pedo patients must have at least two fully erupted first molars and no supragingival calculus on the teeth.)

III) Tasks:

- (1) Take universal precautions.
- (2) Assemble the coronal polishing tray set up.
 - (a) Mouth mirror.
 - (b) Explorer.
 - (c) Dental floss and/or tape.
 - (d) Dappen dish for disclosing solution.
 - (e) Gauze 2 x 2s.
 - (f) Cotton tip applicators (2).
 - (g) Finger cup for holding prophylaxis paste.
 - (h) Prophylaxis paste/polishing agent.
 - (i) Lip lubricant.
 - (j) Disposable prophylaxis cup or latch-type prophylaxis cup.
 - (k) Handpiece or latch-type prophylaxis angle.
 - (l) Saliva ejector.
 - (m) Waste container or cup for disposal of floss, gauze, etc.
 - (n) Patient bib and chain.
- (3) Seat the patient in the chair. Place bib on the patient.
- (4) Review the patient's medical history. Medical history is reviewed with parent if the patient is a minor.
- (5) Explain the coronal polishing procedure to the patient. Informed consent is obtained.
- (6) Protective eyewear is placed on the patient.
- (7) Complete a cursory exam on the patient. Check the lips, oral mucosa, and the face for any lesions or trauma that would contraindicate the polishing procedure.

- (8) Apply lip lubricant. Place disclosing solution in a dappen dish and dip the cotton tip applicator in the solution. Glide the tip over all the surfaces of the teeth.
- (9) Using the air/water syringe, place a small amount of water in the patient's mouth and have them swish. Use the saliva ejector to remove the water.
- (10) Using a mouth mirror, direct and indirect vision, observe the areas where plaque/stain are present.
- (11) Fill the rubber cup with the prophylaxis paste or agent of choice, and place the paste over the tooth surfaces in the quadrant.
- (12) Begin on the distal surface of the most posterior tooth and move toward the anterior. (Note: Begin on the maxillary or mandibular arch.)
- (13) Using a modified pen grasp and a fulcrum, bring the cup in close contact with the surface of the tooth.
- (14) Apply steady pressure with the foot to the rheostat using the toe to activate the rheostat. Adjust the speed by using lighter pressure on the rheostat. (Note: Use the slowest r.p.m., i.e. 10-13 pounds of pressure is sufficient.)
- (15) Apply the moving cup to the tooth surface for 1-2 seconds. Use light pressure on the tooth to cause the cup's edges to flare slightly.
- (16) Begin on the gingival third of the tooth and move toward the incisal third of the tooth using a light brushing motion.
- (17) Turn the handpiece as required to keep the cup adapted to the tooth surface as you move toward the distal and mesial interproximal surfaces.
- (18) Replenish the polishing agent as needed.
- (19) Move the cup to the next area using a light brushing motion.
- (20) Rinse the teeth and gingiva after completing the quadrant. Suction the mouth using the saliva ejector.
- (21) Complete polishing on the remaining teeth.

- (22) Change the prophylaxis angle and replace the rubber cup with a bristle brush.
- (23) Working in one quadrant at a time, place a small amount of paste on the brush and distribute over the occlusal surfaces where plaque or stain are present.
- (24) Retract the cheek with the mouth mirror.
- (25) Using a modified pen grasp, establish a fulcrum and bring the brush in close contact with the tooth surface.
- (26) Apply steady pressure with the foot to the rheostat, using the toe to activate the rheostat. Adjust the speed by using lighter pressure on the rheostat. (Note: Use the slowest speed r.p.m., i.e. 10-13 pounds of pressure is sufficient.)
- (27) Apply the moving brush lightly to the occlusal surfaces for approximately 3-4 seconds.
- (28) Using a short stroke in a brushing motion, follow the inclined planes of the cusp as you polish.
- (29) Continue to move from tooth to tooth to prevent frictional heat.
- (30) Replenish polishing agent as needed.
- (31) Rinse the area and mouth frequently.
- (32) Complete all the occlusal surfaces.
- (33) Using the air/water syringe, place a small amount of water in the mouth and have the patient swish. Use the saliva ejector to remove the water.
- (34) Using waxed or unwaxed floss, floss all the interproximal surfaces. Change the floss as necessary. If necessary, use finishings strips or bridge threaders.
- (35) Apply lip lubricant. Place disclosing solution on the teeth using a new cotton tip applicator.
- (36) Using the air/water syringe, place a small amount of water in the patient's mouth and have the patient swish. Use the saliva ejector to remove the water.

- (37) Using a mouth mirror, direct and indirect vision, check for any plaque or stain using the air/water syringe. Follow the same tooth sequence as for polishing.
- (38) Direct the tip of the syringe toward the gingival margin of the tooth and interproximal surfaces. Move the syringe tip over the surface of the tooth using a gentle stream of air. Remain on the tooth to dry the area sufficiently. Note any area(s) of plaque or stain.
- (39) Remove areas of plaque or stain using the rubber cup or bristle brush.
- (40) Using the air/water syringe, place a small amount of water in the patient's mouth and have them swish. Use the saliva ejector to remove the water.
- (41) Wipe off the area around the patient's mouth and lips. Apply lip lubricant.
- (42) Seat the patient upright.
- (43) Properly dispose of any gauze, floss, or excess materials. Clean off the mouth mirror.
- (44) Aseptic technique is maintained throughout the entire procedure.
- (45) The date is recorded.
- (46) The entry is written in ink.
- (47) Student signs record of services.
- (48) Instructor initials the record of services.

13.0 Placing Preformed Aluminum Temporary Crowns Procedure

- I) Number of Tasks to Master = 28.
- II) Intended Outcome: Given the necessary personnel, supplies, and equipment to fabricate a preformed aluminum temporary crowns, the student will perform the following tasks on two typodont teeth with 100% accuracy.
- III) Tasks:
 - (1) Take universal precautions.
 - (2) Assemble the preformed aluminum temporary crown tray set up.
(Note: In an actual office practice you may find some of the items are not used.)
 - (a) Typodont with prepared tooth.
 - (b) Mouth mirror.
 - (c) Explorer.
 - (d) Articulating paper & holder.
 - (e) Assortment of aluminum crowns.
 - (f) Curved crown and bridge scissors.
 - (g) Contouring pliers.
 - (h) Dental floss.
 - (i) Burnisher.
 - (j) Cotton rolls.
 - (k) Lubricant.
 - (l) Polishing devices.
 - (m) Temporary cement.
 - (n) Mixing pad and spatula.
 - (3) Seat the patient and place patient bib.
 - (4) Review patient's medical history. If patient is a minor, review medical history with the parent or guardian of the patient.
 - (5) Explain the dental procedure to the patient.
 - (6) Check occlusion.
 - (7) Visually and tactually locate the margin line.
 - (8) Measure the mesiodistal space at the contact area.
 - (9) Select the appropriate aluminum temporary crown.
 - (10) Try-in the crown.

- (11) Check the mesiodistal space.
- (12) Check the facial and lingual contours.
- (13) Scribe a trim line for trimming the finish line and trim/contour the crown to fit the preparation.
- (14) If margin is trimmed short, select another crown.
- (15) Check marginal adaptation of temporary crown with an explorer from the gingival to the occlusal surface.
- (16) Reduce the circumference of the crown margin by crimping and smooth the edges of the crown.
- (17) Develop the crown's occlusal anatomy.
- (18) Check the occlusion and check the occlusal and interproximal contacts.
- (19) Use a ball burnisher to increase the size to accomplish contact.
- (20) Smooth the crown.
- (21) Cement the temporary crown.
- (22) Remove excess cement.
- (23) Floss – Removing floss vertically.
- (24) Make final check for occlusion.
- (25) The date is recorded.
- (26) The entry is written in ink.
- (27) Student signs record of services.
- (28) Instructor initials the record of services.

14.0 Placing a Preformed Plastic Temporary Crown Procedure

- I) Number of Tasks to Master = 31.
- II) Intended Outcome: Given the necessary personnel, supplies and equipment to fabricate a preformed plastic temporary crown, the student will perform the following tasks on two anterior typodont teeth with 100% accuracy.
- III) Tasks:
 - (1) Take universal precautions.
 - (2) Assemble the preformed plastic temporary crown tray set up.
(Note: In an actual office practice you may find some of the items are not used.)
 - (a) Typodont with prepared tooth.
 - (b) Mouth mirror.
 - (c) Explorer.
 - (d) Excavator.
 - (e) Articulating paper & holder.
 - (f) Assortment of preformed polycarbonate temporary crowns.
 - (g) Acrylic/carbide burs.
 - (h) Sharpened soft lead pencil.
 - (i) Curved crown and bridge scissors.
 - (j) Cotton rolls.
 - (k) Lubricant.
 - (l) Dappen dish.
 - (m) Acrylic resin kit.
 - (n) 2 x 2 gauze.
 - (o) Mixing spatula.
 - (p) Polishing devices.
 - (q) Temporary cement.
 - (r) Mixing pad.
 - (s) Dental floss.
 - (t) Boley gauge.
 - (3) Seat the patient and place patient bib.
 - (4) Review patient's medical history. If patient is a minor, review medical history with the parent or guardian of the patient.
 - (5) Explain the dental procedure to the patient.
 - (6) Check the occlusion.
 - (7) Visually and tactually locate the margin line.

- (8) Measure the mesiodistal space at the contact area.
- (9) Select the appropriate preformed plastic crown.
- (10) Try-in the crown.
- (11) Adjust the binding with a round carbide bur.
- (12) Adjust the gingival length of the margin and contour of the crown with an acrylic bur.
- (13) Clean, dry, isolate, and lubricate the preparation and the temporary crown. (Do not lubricate the interior of the crown.)
- (14) Mix the polymer and monomer creating an exothermic reaction.
- (15) Fill the crown with the acrylic resin.
- (16) Seat the filled crown on the preparation when the material has lost its sheen and is of doughy consistency.
- (17) Remove crown and trim excess resin with an acrylic bur and reseal crown during polymerization process.
- (18) Trim the crown margin.
- (19) Adjust facial and lingual contours and adjust occlusion/incisal length.
- (20) Refine contours and interproximal areas.
- (21) Check and adjust the contacts with floss.
- (22) Refine and polish the crown surfaces.
- (23) Final check of marginal fit, interproximal contacts and occlusion.
- (24) Clean, dry, isolate, and lubricate prepared tooth and crown.
- (25) Cement the crown on the preparation.
- (26) Remove excess cement around the crown margin and excess cement interproximally with floss (removing vertically).
- (27) Final check of occlusion and margin.
- (28) The date is recorded.
- (29) The entry is written in ink.

- (30) Student signs record of services.
- (31) Instructor initials the record of services.

15.0 Placing a Custom Resin Temporary Crown Procedure

- I) Number of Tasks to Master = 22.
- II) Intended Outcome: Given the necessary personnel, supplies and equipment to fabricate a custom resin temporary crown, the student will perform the following tasks on one posterior and one anterior typodont tooth with 100% accuracy.
- III) Tasks:
 - (1) Take universal precautions.
 - (2) Assemble the custom resin temporary crown tray set up. (Note: In an actual office practice you may find some of the items are not used.)
 - (a) Typodont with prepared tooth.
 - (b) Mouth mirror.
 - (c) Explorer.
 - (d) Articulating paper & holder.
 - (e) Assortment of quadrant impression trays.
 - (f) Impression material set-up.
 - (g) Mixing impression material armamentarium.
 - (h) Acrylic resin kit.
 - (i) Dappen dish.
 - (j) Curved crown and bridge scissors.
 - (k) Spoon excavator.
 - (l) Assortment of acrylic burs.
 - (m) Polishing devices.
 - (n) Lubricant.
 - (o) Dental floss.
 - (p) Cotton rolls.
 - (q) 2 x 2 gauze.
 - (r) Temporary cement kit.
 - (s) Mixing pad.
 - (t) Lathe (optional).
 - (u) Rag wheel (optional).
 - (3) Seat the patient and place patient bib.
 - (4) Review patient's medical history. If patient is a minor, review medical history with the parent or guardian of the patient.
 - (5) Explain the dental procedure to the patient.
 - (6) Check the occlusion and visually and tactually locate the margin line.

- (7) Take an impression of the unprepared tooth.
- (8) Place prepared tooth in the typodont.
- (9) Mix resin (if using methyl methacrylate, mix thoroughly, the monomer (liquid) in its pure form is toxic to the tooth.
- (10) Place resin mixture in impression and place on typodont with prepared tooth.
- (11) Remove resin crown from impression and examine then remove marginal excess from crown.
- (12) Check the contacts with floss and check the marginal adaptation and contours of the crown.
- (13) Check occlusion.
- (14) Smooth and polish the crown.
- (15) Check crown prior to cementation.
- (16) Cement the crown.
- (17) Check crown after cementation for excess cement.
- (18) Check occlusion.
- (19) The date is recorded.
- (20) The entry is written in ink.
- (21) Student signs record of services.
- (22) Instructor initials the record of services.

16.0 Obtaining an Alginate Impression Procedure

- I) Number of Tasks to Master = 57.
- II) Intended Outcome: Given the necessary didactic instruction, supplies and equipment to obtain an alginate impression the student will perform the following tasks on one adult and one child (with mixed dentition) with 100 % accuracy.
- III) Tasks:
 - (1) Take universal precautions.
 - (2) Assemble the alginate impression tray set up.
 - (a) Alginate material.
 - (b) Water measure.
 - (c) Powder scoop.
 - (d) Paper cup.
 - (e) Water.
 - (f) Flexible bowl.
 - (g) Alginate spatula.
 - (3) Seat the patient and place patient bib.
 - (4) Review patient's medical history. If patient is a minor, review medical history with the parent or guardian of the patient.
 - (5) Explain the procedure to the patient.
 - (6) Inspect the mouth.
 - (7) Instruct the patient.
 - (8) Rinse the mouth.
 - (9) Prepare tray.
 - (10) Select maxillary and mandibular trays.
 - (11) Install the wax on the maxillary and mandibular trays.
 - (12) Measure required amount of room temperature water mandibular impression.
 - (13) Fluff alginate powder.
 - (14) Measure powder as indicated by the manufacturer.

- (15) Fill powder with scoop, tap to eliminate air pockets, level and place in a bowl.
- (16) Replace alginate lid.
- (17) Combine water and powder as indicated by the manufacturer.
- (18) Mix until creamy. Total mixing time should not exceed one minute.
- (19) Gather the alginate on the spatula.
- (20) Load tray from the sides in two increments. Wet finger and smooth the surface of the alginate material. (**Optional**, wipe small amount of alginate onto the occlusal surfaces of the mandibular teeth just prior to seating the tray to minimize trapping bubbles . Note: Loading time should be approximately 30 seconds.)
- (21) Instruct the patient to rinse just prior to taking the impression.
- (22) Position yourself between 8 and 9 o'clock.
- (23) The patient's shoulder should be at the same height as the operator's elbow.
- (24) Hold the tray in one hand and, with the other hand, retract the cheek.
- (25) Insert the loaded tray.
- (26) Ask the patient to raise their tongue.
- (27) Depress the tray, posterior to anterior.
- (28) Ask the patient to relax the cheeks and lip with the index fingers; place the thumbs under the mandible.
- (29) Instruct the patient to breathe deeply through their nose.
- (30) When the material is set, run your fingers around the peripheral border to break the seal, protect their upper teeth with your index finger of your left hand and remove with one firm movement or snap.
- (31) Measure required amount of room temperature water for maxillary impressions.
- (32) Measure powder as indicated by manufacturer.

- (33) Fill powder with scoop, tap to eliminate air pockets, level and place in bowl.
- (34) Replace alginate lid.
- (35) Combine water and powder as indicated by the manufacturer.
- (36) Mix until creamy. Total mixing time should not exceed one minute.
- (37) Gather the alginate on the spatula.
- (38) Load the tray from the back in one or two increments. Wet finger and smooth the surface of the alginate material. (Optional: Wipe small amount of alginate onto the occlusal surfaces of the maxillary teeth just prior to seating the tray to minimize trapping bubbles. Note: Loading time should be approximately 30 seconds.)
- (39) The operator's elbow should be at the same height as the patient's shoulder.
- (40) Position yourself between 9 and 12 o'clock (right handed operators).
- (41) Hold the tray in one hand, and with the other hand retract the cheek as you seat the tray.
- (42) Seat the posterior of the tray firmly toward the maxillary teeth. (This will expel the material forward instead of down the throat.)
- (43) Continue seating the anterior portion of the tray, lifting the upper lip to free it from the tray (the patient should relax cheek and lips).
- (44) Instruct the patient to tip head forward to prevent flow down the throat.
- (45) When the material is set, lift the cheeks to break the seal, protect the opposing teeth, separate with one firm continuous motion.
- (46) Create a tongue space on the mandibular.
- (47) Mix one scoop of alginate.
- (48) Wipe it on the middle two fingers of your non-dominate hand.

- (49) Place the mandibular alginate tray; handle towards the heel of the hand, over the alginate. Use the heel of the hand to support the tray handle.
- (50) Using moistened fingers of your dominant hand, join the alginate to the lingual borders of the impression, creating a smooth, flat floor.
- (51) Hold the tray in place until set.
- (52) Gently free the fingers, wrap and bag.
- (53) Check for a satisfactory mandibular and maxillary alginate impression.
 - (a) The tray was seated so all detail is reproduced, including the teeth, the complete peripheral turn and a portion of the retromolar pads and maxillary tuberosity.
 - (b) The detail is sharp, not blurred or indistinct.
 - (c) The impression is free of voids in critical areas.
 - (d) The impression is free of large folds of alginate extending into the patient's throat.
 - (e) There are no areas where the alginate has pulled away from the tray.
 - (f) The impression is free of rips and tears, except in interproximal areas.
 - (g) The alginate covers the tray (no unwaxed tray is visible through the alginate).
 - (h) The alginate is free of bulges or depressions that indicate a sub-surface bubble.
 - (i) The alginate is smooth, not sponge-like or grainy.
 - (j) The tongue space is smooth, flat and does not overlap the impression (mandibular only).
 - (k) The palatal arch is visible (maxillary only).
- (54) The date is recorded.
- (55) The entry is written in ink.
- (56) Student signs record of services.
- (57) Instructor initials the record of services.

17.0 Pit and Fissure Sealant Procedure

- I) Number of Tasks to Master = 33.
- II) Intended Outcome: Given the required armamentarium, didactic information and a dental unit, the student will perform the following tasks on three permanent maxillary molars and three permanent mandibular molars with 100% proficiency.
- III) Tasks:
 - (1) Take universal precautions.
 - (2) Assemble the pit and fissure sealant tray set up. (Note: In an actual office practice you may find some of the items are not used.)
 - (a) Patient bib and 3-way syringe.
 - (b) Evacuator tips.
 - (c) Isolation materials: 2x2 gauze, cotton rolls, and cotton pellets.
 - (d) Rubber dam or Garmer clamps.
 - (e) Slow speed handpiece.
 - (f) Prophylaxis brush.
 - (g) Flour of pumice.
 - (h) Acid etch, brush, or syringe.
 - (i) Sealant material, sealant applicator.
 - (j) Curing light.
 - (k) Dental floss.
 - (l) Articulating paper.
 - (m) Fluoride.
 - (3) Seat the patient in the dental chair and place patient bib.
 - (4) Review patient's medical history. If patient is a minor, review medical history with the parent or guardian of the patient.
 - (5) Explain sealant procedure to the patient.
 - (6) Protective eyewear is placed on the patient.
 - (7) Select and check the teeth that have been diagnosed for sealants by a dentist. ** A signed permission slip is mandatory.
 - (8) Isolate the tooth by using a rubber dam or cotton rolls with or without a garmer clamp.
 - (9) Pumice surface(s) of each tooth designated with a disposable prophyl brush on a slow speed handpiece.

- (10) Using the 3-way syringe, rinse the tooth thoroughly for 15 to 20 seconds.
- (11) Check the tooth surface, with an explorer, for any remaining pumice. Remove and rinse again if necessary.
- (12) Re-isolate the tooth as needed and dry thoroughly.
- (13) Apply acid etch the tooth for 20-60 seconds. The etch should be applied 2-3 millimeters beyond the area to be sealed. **
Deciduous teeth should be etched for up to 60 seconds
- (14) Rinse the tooth for 20-30 seconds using a steady stream of water or spray. Hold the HVE close to the tooth when rinsing off the acid etch.
- (15) Re-isolate tooth again (if needed) being careful not to contaminate it with saliva or other debris.
- (16) Dry tooth for 10-20 seconds and check etched surface for opaqueness prior to continuing the process.
- (17) Apply sealant material to the prepared pits and grooves of the tooth using the technique in which you were taught.
- (18) Activate polymerization with the curing light for up to 60 seconds.
- (19) Check completed application of the sealant with an explorer.
- (20) Re-apply sealant material to any area that did not fully seal or exhibits a 'bubble' or other defect. ** Adding more sealant material without re-etching is permissible if tooth remains uncontaminated.
- (21) If re-application is necessary, follow the same curing procedure.
- (22) Rinse tooth gently with water or a cotton pellet.
- (23) Remove isolation materials.
- (24) Check patient's occlusion with articulating paper.
- (25) Inform the patient if the occlusion needs to be adjusted.
- (26) Adjust occlusion as necessary with a finishing bur in the slow speed handpiece.
- (27) Apply fluoride to the tooth that has been sealed.

- (28) Give post-operative instructions to the patient regarding the importance of evaluating the sealants every six months.
- (29) Chart the complete procedure in the patient's chart.
- (30) The date is recorded.
- (31) The entry is written in ink.
- (32) Student signs record of services.
- (33) Instructor initials the record of services.

Table 9. Educational Parameters of the Clinical/Lab Component of the Expanded Functions Dental Assisting Curriculum: Evaluation		
Unit	Title	Number of Tasks
10	Finishing and Polishing Amalgam Restorations Procedure	53
11	Polishing Composite Restorations Procedure	32
12	Coronal Polishing Procedure	48
13	Placing a Preformed Aluminum Temporary Crown Procedure	28
14	Placing a Preformed Plastic Temporary Crown Procedure	31
15	Placing a Preformed Resin Temporary Crown Procedure	22
16	Obtaining an Alginate Impression Procedure	57
17	Pit and Fissure Sealants	33
Total		304

Expanded Functions Competency-Based Clinical/Laboratory Evaluation

10.0 Finishing and Polishing Amalgam Restorations Procedure

Student Name: _____

Lab Evaluator: _____ Date _____ Grade: [] Pass [] Fail

CL Evaluator: _____ Date _____ Grade [] Pass [] Fail

Intended Outcome: Given the necessary supplies and equipment for finishing and polishing amalgam restorations, the student will perform the following tasks on six typodont or natural teeth with 100% accuracy. The student will perform the following tasks on one adult patient with a Class II amalgam restoration on the final laboratory examination. Time allotment: 50 minutes.

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
1.	Take universal precautions.				
2.	Assemble the finishing and polishing amalgam restorations procedure tray set up. (Note: In an actual office practice you may find some of these items are not used.) Mouth mirror. Slow-speed handpiece. Cotton rolls. Cotton pliers. High volume evacuator. Saliva ejector. 3-way syringe. Green stone. 12-blade round finishing bur (#4 or #6). 32-blade round finishing bur (#4 or #6). Abrasive rotary disk (coarse). Mandrel for the disk. Discoid/cleoid (sharp). ½-Hollenbeck (sharp). Finishing strip (coarse). Articulating paper. Articulating paper holder. Dental floss. #1/2 or #1 round bur.				
3.	Seat the patient and place patient bib.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
4.	Review patient's medical history. If patient is a minor, review medical history with the parent or guardian of the patient.				
5.	Explain the procedure to the patient.				
6.	Add the following 10 items to the above armamentarium list to polish an amalgam restoration with pumice and tin oxide/Shofu® points. Prophy angle. Two prophy cups. Flour of pumice. Tin oxide powder (anhydrous). Dental tape. Ethyl alcohol. Dappen dish. Brownie® points and cups. Greenie® points and cups. Super Greenie® points and cups.				
7.	Evaluate the selected restoration for polishing.				
8.	Check for fracturing of the restoration or tooth that compromises the integrity of the tooth or restoration that cannot be modified by finishing.				
9.	Check for adequate interproximal contact if the restoration is a class II filling.				
10.	Check that the occlusal contact and marginal ridges are not below the plane of occlusion.				
11.	Check that the margins are not below the cavosurface beyond modification (ditching due to marginal fracture or inadequate fill).				
12.	Check the centric occlusion by first, drying the teeth, and then, having the patient tap his teeth together on articulating paper held with the articulating paper holder.				
13.	Check the markings for any marks that are not uniform when compared to the markings on adjacent teeth.				
14.	Check the markings on the tooth during eccentric movement by having the patient grind side-to-side and front-to-back while the articulating paper is held between the teeth.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
15.	Isolate the tooth with the restoration to be polished by cotton rolls or a rubber dam.				
16.	Place the green stone in the slow-speed handpiece and evaluate and adjust the restoration for any occlusal excess in the form of flash at the cavosurface margins, or on the slopes of the cusps where recontouring will render a more optimal anatomy.				
17.	Place the #1/2 or #1 round bur in the slow-speed handpiece and define the developmental grooves and fissure and the triangular fossae.				
18.	Place the #4 or #6 round finishing bur in the slow speed handpiece and use it to smooth the occlusal cavosurface margins.				
19.	Smooth the occlusal surface.				
20.	Place the mandrel for the rotary abrasive disk in the slow-speed handpiece, attach the disk, and proceed to finish the interproximal areas.				
21.	Use the finishing strip to smooth the proximal cavosurface margins.				
22.	Smooth the facial and lingual surfaces of the restoration.				
23.	Use an abrasive disk to smooth the convex surfaces.				
24.	Use a finishing bur to smooth the concave surfaces.				
25.	Begin the polishing procedure by mixing the flour of pumice to a creamy consistency in a dappen dish.				
26.	Using a prophy cup on a prophy angle, pumice all the restoration surfaces.				
27.	Determine when the pumicing step is finished by the satiny smooth appearance of the restoration.				
28.	Use the dental tape to pumice the interproximal surfaces of the restoration.				
29.	Rinse and floss all the residue of pumice from the mouth.				
30.	Polish with tin oxide powder that has been mixed in a clean dappen dish with water or ethyl alcohol.				
31.	Use a new prophy cup to polish the restoration in order to prevent pumice residue in the cup from marring the new amalgam surface.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
32.	Use the same stroke that was used during the pumice procedure with the tin oxide but with the hand piece run at a faster speed.				
33.	Buff the tin oxide into the interproximal areas with dental tape.				
34.	Check the final polish. (Note: The restoration will have a mirror-like finish.)				
35.	Rinse the residual tin oxide thoroughly from the mouth.				
36.	If it is desired, use dry tin oxide to exact an even higher shine.				
37.	Polish with abrasive points and cups.				
38.	Place the Brownie® cup in the hand piece and run at a slow-speed over all convex surfaces of the restoration.				
39.	Employ an on-and-off motion while using all abrasive points/cups in order to avoid overheating the tooth.				
40.	Place the Brownie® point in the slow-speed handpiece and run in the same manner as the cup in the concave surfaces of the restoration.				
41.	Check to make sure that the surface appears velvety smooth, with no individually noticeable scratches.				
42.	First, place a Super Greenie® point and then a Super Greenie® cup in the slow speed handpiece and, with the same on-off touch, run at the highest speed possible with the slow-speed handpiece.				
43.	Check to make sure that the restoration has a mirror-like finish.				
44.	Clear the oral cavity of all debris from the finishing and polishing procedure.				
45.	Evaluate the polished tooth to determine if the crucial parts of the filling have been preserved in the polishing procedure.				
46.	Check that all margins of the restoration are flush with the cavosurface.				
47.	Check that the overall contour is appropriate, the contacts have been maintained, and the grooves and fissures are defined.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
48.	Check that the entire surface is smooth, has a mirror-like appearance, and no pits or scratches are detectable.				
49.	Check that there is no damage to the adjacent tooth surfaces and that appropriate occlusal contacts have been maintained.				
50.	The date is recorded.				
51.	The entry is written in ink.				
52.	Student signs record of services.				
53.	Instructor initials the record of services.				
Comments					

Expanded Functions

Competency-Based Clinical/Laboratory Evaluation

11.0 Polishing Composite Restorations

Student Name: _____

Lab Evaluator: _____ Date _____ Grade: [] Pass [] Fail

CL Evaluator: _____ Date _____ Grade [] Pass [] Fail

Intended Outcome: Given the necessary supplies and equipment to polish composite restorations, the student will perform the following tasks on six typodont or natural teeth with 100% accuracy. (Note: Three of the composite restorations must be a Class II restoration with an interproximal contact.) The student will perform the following tasks on one natural tooth with a Class II posterior composite restoration on the final laboratory examination. Time allotment: 30 minutes.

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
1.	Take universal precautions.				
2.	Assemble the polishing composite restorations tray set-up. (Note: In an actual office practice you may find some of the items are not used.) Slow-speed handpiece. Appropriate mandrels and disks, cups, or points for the particular system of abrasive polishing materials to be used. Diamond polishing paste. Mouth mirror. Explorer. Air/water syringe. Articulating paper and holder. Finishing strips. White stone. Prophyl angle. Prophyl cup. 2 x 2 inch gauze. Cotton rolls. Unfilled resin bonding agent or a commercial composite sealer. Curing light.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
3.	Seat the patient in the dental chair and place patient bib.				
4.	Review patient's medical history. If patient is a minor, review medical history with the parent or guardian of the patient.				
5.	Explain the procedure to the patient.				
6.	Determine if the restoration is acceptable for polishing.				
7.	Check if the interproximal contacts are properly adapted to the adjacent tooth and the occlusal contacts are correct.				
8.	Check for microleakage around the restoration.				
9.	Check for ditching or microfracturing at the cavosurface margins.				
10.	Check to determine if there is evidence of impact fracturing in the surface of the restoration.				
11.	The coarse disk is placed on the mandrel and the convex areas of the restoration are polished until they have reached a uniform smoothness with no obvious deep scratches or gouges.				
12.	The coarse points or cups are placed on the mandrel and the concave areas of the restoration are polished to a uniform smoothness with no obvious deep scratches or gouges.				
13.	Using the articulating paper, check to ensure that the optimal occlusal contacts have not been lost.				
14.	The medium disk and cup or point is then used in a like manner as above.				
15.	Check to ensure the occlusal contacts are still undisturbed.				
16.	Using fine and very fine disks and cups or points to achieve the smoothest and glossiest surface possible.				
17.	The prophyl angle and a prophyl cup are attached to the handpiece and a small amount of the diamond polishing paste is dispensed into a dampen dish and carried to the restoration.				
18.	The restoration is then polished to a high luster with the diamond polishing paste.				
19.	The restoration is rinsed and dried.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
20.	The restoration and the cavosurface margins of the restoration are re-etched with 30% to 37% phosphoric acid gel for 15 seconds and thoroughly rinsed with copious amounts of water for 10 seconds.				
21.	Unfilled resin (bonding agent) or a commercially prepared composite sealer is brushed over the entire surface of the restoration and the cavosurface margins.				
22.	The sealer is then air thinned with the air/water syringe and cured for 10 to 20 seconds with the curing light.				
23.	Evaluate the polished tooth to determine if the crucial parts of the filling have been preserved in the polishing procedure.				
24.	Check if the interproximal contacts of the restoration have been maintained.				
25.	Check if the occlusal contact is adequate in centric occlusion.				
26.	Check if there are any eccentric occlusal contacts that must still be removed.				
27.	Check the restoration surface to ensure the polish has been performed accurately and if there have been any inadvertent gouges or scratches introduced during the polishing process.				
28.	The instructor will evaluate the polished restoration.				
29.	The date is recorded.				
30.	The entry is written in ink.				
31.	Student signs record of services.				
32.	Instructor initials the record of services.				
Comments					

Expanded Functions

Competency-Based Clinical/Laboratory Evaluation

12.0 Coronal Polishing Procedure

Student Name: _____

Lab Evaluator: _____ Date _____ Grade: [] Pass [] Fail

CL Evaluator: _____ Date _____ Grade [] Pass [] Fail

Intended Outcome: Given the required armamentarium, didactic information, and a dental unit, the student will perform the following tasks on three adult patients and three pedo patients with mixed dentitions with 100% accuracy in a clinical setting. The student will perform the following tasks with at least 85% accuracy on one adult patient and one pedo patient (mixed dentition) on the final clinical examination. Time allotment: 30 minutes each patient.

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
1.	Take universal precautions.				
2.	Assemble the coronal polishing tray set up. Mouth mirror. Explorer. Dental floss and/or tape. Dappen dish for disclosing solution. Gauze 2 x 2s. Cotton tip applicators (2). Finger cup for holding prophylaxis paste. Prophylaxis paste/polishing agent. Lip lubricant. Disposable prophylaxis cup or latch-type prophylaxis cup. Handpiece or latch-type prophylaxis angle. Saliva ejector. Waste container or cup for disposal of floss, gauze, etc. Patient bib and chain.				
3.	Seat the patient in the dental chair and place patient bib.				
4.	Review the patient's medical history. If the patient is a minor, review medical history with the parent or guardian of the patient.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
5.	Explain the procedure to the patient.				
6.	Protective eyewear is placed on the patient.				
7.	Complete a cursory exam on the patient. Check the lips, oral mucosa, and the face for any lesions or trauma that would contraindicate the polishing procedure.				
8.	Apply lip lubricant. Place disclosing solution in a dappen dish and dip the cotton tip applicator in the solution. Glide the tip over all the surfaces of the teeth.				
9.	Using the air/water syringe, place a small amount of water in the patient's mouth and have them swish. Use the saliva ejector to remove the water.				
10.	Using a mouth mirror, direct and indirect vision, observe the areas where plaque/stain are present.				
11.	Fill the rubber cup with the prophylaxis paste or agent of choice, and place the paste over the tooth surfaces in the quadrant.				
12.	Begin on the distal surface of the most posterior tooth and move toward the anterior. (Note: Begin on the maxillary or mandibular arch.)				
13.	Using a modified pen grasp and a fulcrum, bring the cup in close contact with the surface of the tooth.				
14.	Apply steady pressure with the foot to the rheostat using the toe to activate the rheostat. Adjust the speed by using lighter pressure on the rheostat. (Note: Use the slowest r.p.m., i.e. 10-13 pounds of pressure is sufficient.)				
15.	Apply the moving cup to the tooth surface for 1-2 seconds. Use light pressure on the tooth to cause the cup's edges to flare slightly.				
16.	Begin on the gingival third of the tooth and move toward the incisal third of the tooth using a light brushing motion.				
17.	Turn the handpiece as required to keep the cup adapted to the tooth surface as you move toward the distal and mesial interproximal surfaces.				
18.	Replenish the polishing agent as needed.				
19.	Move the cup to the next area using a light brushing motion.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
20.	Rinse the teeth and gingiva after completing the quadrant. Suction the mouth using the saliva ejector.				
21.	Complete polishing on the remaining teeth.				
22.	Change the prophylaxis angle and replace the rubber cup with a bristle brush.				
23.	Working in one quadrant at a time, place a small amount of paste on the brush and distribute over the occlusal surfaces where plaque or stain are present.				
24.	Retract the cheek with the mouth mirror.				
25.	Using a modified pen grasp, establish a fulcrum and bring the brush in close contact with the tooth surface.				
26.	Apply steady pressure with the foot to the rheostat, using the toe to activate the rheostat. Adjust the speed by using lighter pressure on the rheostat. (Note: Use the slowest speed r.p.m., i.e. 10-13 pounds of pressure is sufficient.)				
27.	Apply the moving brush lightly to the occlusal surfaces for approximately 3-4 seconds.				
28.	Using a short stroke in a brushing motion, follow the inclined planes of the cusp as you polish.				
29.	Continue to move from tooth to tooth to prevent frictional heat.				
30.	Replenish polishing agent as needed.				
31.	Rinse the area and mouth frequently.				
32.	Complete all the occlusal surfaces.				
33.	Using the air/water syringe, place a small amount of water in the mouth and have the patient swish. Use the saliva ejector to remove the water.				
34.	Using waxed or unwaxed floss, floss all the interproximal surfaces. Change the floss as necessary. If necessary, use finishings strips or bridge threaders.				
35.	Apply lip lubricant. Place disclosing solution on the teeth using a new cotton tip applicator.				
36.	Using the air /water syringe, place a small amount of water in the patient's mouth and have the patient swish. Use the saliva ejector to remove the water.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
37.	Using a mouth mirror, direct and indirect vision, check for any plaque or stain using the air/water syringe. Follow the same tooth sequence as for polishing.				
38.	Direct the tip of the syringe toward the gingival margin of the tooth and interproximal surfaces. Move the syringe tip over the surface of the tooth using a gentle stream of air. Remain on the tooth to dry the area sufficiently. Note any area(s) of plaque or stain.				
39.	Remove areas of plaque or stain using the rubber cup or bristle brush.				
40.	Using the air/water syringe, place a small amount of water in the patient's mouth and have them swish. Use the saliva ejector to remove the water.				
41.	Wipe off the area around the patient's mouth and lips. Apply lip lubricant.				
42.	Seat the patient upright.				
43.	Properly dispose of any gauze, floss, or excess materials. Clean off the mouth mirror.				
44.	Aseptic technique is maintained throughout the entire procedure.				
45.	The date is recorded.				
46.	The entry is written in ink.				
47.	Student signs record of services.				
48.	Instructor initials the record of services.				
Comments					

Expanded Functions

Competency-Based Clinical/Laboratory Evaluation

13.0 Placing Preformed Aluminum Temporary Crowns Procedure

Student Name: _____

Lab Evaluator: _____ Date _____ Grade: [] Pass [] Fail

CL Evaluator: _____ Date _____ Grade [] Pass [] Fail

Intended Outcome: Given the necessary personnel, supplies and equipment to fabricate a preformed aluminum temporary crown, the student will perform the following tasks on two typodont teeth with 100% accuracy in a laboratory setting. The student will perform the following tasks on a typodont tooth with at least 85% accuracy on the final laboratory examination. Time allotment: 1 hour.

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
1.	Take universal precautions.				
2.	Assemble the preformed aluminum temporary crown tray set up. (Note: In an actual office practice you may find some of these items are not used.) Typodont with prepared tooth. Mouth mirror. Explorer. Articulating paper & holder. Assortment of aluminum crowns. Curved crown and bridge scissors. Contouring pliers. Dental floss. Burnisher. Cotton rolls. Lubricant. Polishing devices. Temporary cement. Mixing pad and spatula.				
3.	Seat the patient in the dental chair and place patient bib.				
4.	Review patient's medical history. If patient is a minor, review medical history with the parent or guardian of the patient.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
5.	Explain the procedure to the patient.				
6.	Check occlusion.				
7.	Visually and tactually locate the margin line.				
8.	Measure the mesiodistal space.				
9.	Select the appropriate aluminum temporary crown.				
10.	Try-in the crown.				
11.	Check the mesiodistal space.				
12.	Check the facial and lingual contours.				
13.	Scribe a trim line for trimming the finish line and trim/contour the crown to fit the preparation.				
14.	If margin is trimmed short, select another crown.				
15.	Check marginal adaptation of temporary crown with an explorer from the gingival to the occlusal surface.				
16.	Reduce the circumference of the crown margin by crimping and smooth the edges of the crown.				
17.	Develop the crown's occlusal anatomy.				
18.	Check the occlusion and check the occlusal and interproximal contacts.				
19.	Use a ball burnisher to increase the size to accomplish the contact.				
20.	Smooth the crown.				
21.	Cement the temporary crown.				
22.	Remove excess cement.				
23.	Floss-Removing floss vertically.				
24.	Make final check for occlusion.				
25.	The date is recorded.				
26.	The entry is written in ink.				
27.	Student signs record of services.				
28.	Instructor initials the record of services.				
Comments					

Expanded Functions Competency-Based Clinical/Laboratory Evaluation

14.0 Placing a Preformed Plastic Temporary Crown Procedure

Student Name: _____

Lab Evaluator: _____ Date _____ Grade: [] Pass [] Fail

CL Evaluator: _____ Date _____ Grade [] Pass [] Fail

Intended Outcome: Given the necessary personnel, supplies and equipment to fabricate a preformed plastic temporary crown, the student will perform the following tasks on two posterior typodont teeth with 100% accuracy in a laboratory setting. The student will perform the following tasks on two anterior typodont teeth with at least 85% accuracy on the final laboratory examination. Time allotment: 1 hour.

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
1.	Take universal precautions.				
2.	Assemble the preformed plastic temporary crown tray set up. (Note: In an actual office practice you may find some of these items are not used.) Typodont with prepared tooth. Mouth mirror. Explorer. Excavator. Articulating paper & holder. Assortment of preformed polycarbonate temporary crowns. Acrylic/carbide burs. Sharpened soft lead pencil. Curved crown and bridge scissors. Cotton rolls. Lubricant. Dappen dish. Acrylic resin kit. 2 x 2 gauze. Mixing spatula. Polishing devices. Temporary cement. Mixing pad. Dental floss. Boley gauge.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
3.	Seat the patient in the dental chair and place patient bib.				
4.	Review patient's medical history. If patient is a minor, review medical history with the parent or guardian of the patient.				
5.	Explain the procedure to the patient.				
6.	Check occlusion.				
7.	Visually and tactually locate the margin line.				
8.	Measure the mesiodistal space at the contact area.				
9.	Select the appropriate preformed plastic crown.				
10.	Try-in the crown.				
11.	Adjust the binding with a round carbide bur.				
12.	Adjust the gingival length of the margin and contour of the crown with an acrylic bur.				
13.	Clean, dry, isolate, and lubricate the preparation and the temporary crown. (Do not lubricate the interior of the crown).				
14.	Mix the polymer and monomer creating an exothermic reaction.				
15.	Fill the crown with the acrylic resin.				
16.	Seat the filled crown on the preparation when the material has lost its sheen and is of doughy consistency.				
17.	Remove the crown and trim excess resin with an acrylic bur and reseat crown during polymerization process.				
18.	Trim the crown margin.				
19.	Adjust facial and lingual contours and adjust occlusion/incisal length.				
20.	Refine contours and interproximal areas.				
21.	Check and adjust the contacts with floss.				
22.	Refine and polish the crown surfaces.				
23.	Final check of marginal fit, interproximal contacts and occlusion.				
24.	Clean, dry, isolate, and lubricate prepared tooth and crown.				
25.	Cement the crown on the preparation.				
26.	Remove excess cement around the crown margin and excess cement interproximally with floss (removing vertically).				
27.	Final check of occlusion and margin.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
28.	The date is recorded.				
29.	The entry is written in ink.				
30.	Student signs record of services.				
31.	Instructor initials the record of services.				
Comments					

Expanded Functions Competency-Based Clinical/Laboratory Evaluation

15.0 Placing a Custom Resin Temporary Crown Procedure

Student Name: _____

Lab Evaluator: _____ Date _____ Grade: [] Pass [] Fail

CL Evaluator: _____ Date _____ Grade [] Pass [] Fail

Intended Outcome: Given the necessary personnel, supplies and equipment to fabricate a custom resin temporary crown, the student will perform the following tasks on one posterior and one anterior typodont tooth with 100% accuracy in a laboratory setting. The student will perform the following tasks on one anterior typodont tooth with at least 85% accuracy on the final laboratory examination. Time allotment: 1 hour.

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
1.	Take universal precautions.				
2.	Assemble the custom resin temporary crown tray set up. (Note: In an actual office practice you may find some of these items are not used.) Typodont with prepared tooth. Mouth mirror. Explorer. Articulating paper & holder. Assortment of quadrant impression trays. Impression material set-up. Mixing impression material armamentarium. Acrylic resin kit. Dappen dish. Curved crown and bridge scissors. Spoon excavator. Assortment of acrylic burs. Polishing devices. Lubricant. Dental floss. Cotton rolls. 2 x 2 gauze. Temporary cement kit. Mixing pad. Lathe (optional). Rag wheel (optional).				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
3.	Seat the patient in the dental chair and place patient bib.				
4.	Review patient's medical history. If patient is a minor, review medical history with the parent or guardian of the patient.				
5.	Explain the procedure to the patient.				
6.	Check the occlusion and visually and tactually locate the margin line.				
7.	Take an impression of the unprepared tooth.				
8.	Place prepared tooth in the typodont.				
9.	Mix resin (if using methyl methacrylate, mix thoroughly, the monomer (liquid) in its pure form is toxic to the tooth.				
10.	Place resin mixture in impression and place on typodont with prepared tooth.				
11.	Remove resin crown from impression and examine then remove marginal excess from crown.				
12.	Check the contacts with floss and check the marginal adaptation and contours of the crown.				
13.	Check occlusion.				
14.	Smooth and polish the crown.				
15.	Check crown prior to cementation.				
16.	Cement the crown.				
17.	Check crown after cementation for excess cement.				
18.	Check occlusion.				
19.	The date is recorded.				
20.	The entry is written in ink.				
21.	Student signs record of services.				
22.	Instructor initials the record of services.				
Comments					

Expanded Functions Competency-Based Clinical/Laboratory Evaluation

16.0 Obtaining an Alginate Impression Procedure

Student Name: _____

Lab Evaluator: _____ Date _____ Grade: [] Pass [] Fail

CL Evaluator: _____ Date _____ Grade [] Pass [] Fail

Intended Outcome: Given the necessary didactic instruction, supplies and equipment to obtain an alginate impression, the student will perform the following tasks on a partner with 100% accuracy in a clinical setting. The student will perform the following tasks on two adult patients with at least 85% accuracy on the final clinical examination. Time allotment: 50 minutes.

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
1.	Take universal precautions.				
2.	Assemble the alginate impression tray set up. Alginate material. Water measure. Powder scoop. Paper cup. Water. Flexible bowl. Alginate spatula.				
3.	Seat the patient and place patient bib.				
4.	Review patient's medical history. If patient is a minor, review medical history with the parent or guardian of the patient.				
5.	Explain the procedure to the patient.				
6.	Inspect the mouth.				
7.	Instruct the patient.				
8.	Rinse the mouth.				
9.	Prepare tray.				
10.	Select maxillary and mandibular trays.				
11.	Install the wax on the maxillary and mandibular trays.				
12.	Measure required amount of room temperature water mandibular impression.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
13.	Fluff alginate powder.				
14.	Measure powder as indicated by the manufacturer.				
15.	Fill powder with scoop, tap to eliminate air pockets, level and place in a bowl.				
16.	Replace alginate lid.				
17.	Combine water and powder as indicated by the manufacturer.				
18.	Mix until creamy. Total mixing time should not exceed one minute.				
19.	Gather the alginate on the spatula.				
20.	Load tray from the sides in two increments. Wet finger and smooth the surface of the alginate material. (Optional , wipe small amount of alginate onto the occlusal surfaces of the mandibular teeth just prior to seating the tray to minimize trapping bubbles . Note: Loading time should be approximately 30 seconds.)				
21.	Instruct the patient to rinse just prior to taking the impression.				
22.	Position yourself between 8 and 9 o'clock.				
23.	The patient's shoulder should be at the same height as the operator's elbow.				
24.	Hold the tray in one hand and, with the other hand retract the cheek.				
25.	Insert the loaded tray.				
26.	Ask the patient to raise their tongue.				
27.	Depress the tray, posterior to anterior.				
28.	Ask the patient to relax the cheeks and lip with the index fingers; place the thumbs under the mandible.				
29.	Instruct the patient to breathe deeply through their nose.				
30.	When the material is set, run your fingers around the peripheral border to break the seal, protect their upper teeth with your index finger of your left hand and remove with one firm movement or snap.				
31.	Measure required amount of room temperature water for maxillary impressions.				
32.	Measure powder as indicated by manufacturer.				
33.	Fill powder with scoop, tap to eliminate air pockets, level and place in bowl.				
34.	Replace alginate lid.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
35.	Combine water and powder as indicated by the manufacturer.				
36.	Mix until creamy. Total mixing time should not exceed one minute.				
37.	Gather the alginate on the spatula.				
38.	Load the tray from the back in one or two increments. Wet finger and smooth the surface of the alginate material. (Optional: Wipe small amount of alginate onto the occlusal surfaces of the maxillary teeth just prior to seating the tray to minimize trapping bubbles. Note: Loading time should be approximately 30 seconds.)				
39.	The operator's elbow should be at the same height as the patient's shoulder.				
40.	Position yourself between 9 and 12 o'clock (right handed operators).				
41.	Hold the tray in one hand, and with the other hand retract the cheek as you seat the tray.				
42.	Seat the posterior of the tray firmly toward the maxillary teeth. (This will expel the material forward instead of down the throat.)				
43.	Continue seating the anterior portion of the tray, lifting the upper lip to free it from the tray (the patient should relax cheek and lips).				
44.	Instruct the patient to tip head forward to prevent flow down the throat.				
45.	When the material is set, lift the cheeks to break the seal, protect the opposing teeth, separate with one firm continuous motion.				
46.	Create a tongue space on the mandibular.				
47.	Mix one scoop of alginate.				
48.	Wipe it on the middle two fingers of your non-dominant hand.				
49.	Place the mandibular alginate tray; handle towards the heel of the hand, over the alginate. Use the heel of the hand to support the tray handle.				
50.	Using moistened fingers of your dominant hand, join the alginate to the lingual borders of the impression, creating a smooth, flat floor.				
51.	Hold the tray in place until set.				
52.	Gently free the fingers, wrap, and bag.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
53.	Check for a satisfactory maxillary and mandibular alginate impression.				
54.	The date is recorded.				
55.	The entry is written in ink.				
56.	Student signs record of services.				
57.	Instructor initials the record of services.				
Comments					

Expanded Functions Competency-Based Clinical/Laboratory Evaluation

17.0 Pit and Fissure Sealants

Student Name: _____

Lab Evaluator: _____ Date _____ Grade: [] Pass [] Fail

CL Evaluator: _____ Date _____ Grade [] Pass [] Fail

Intended Outcome:

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
1.	Take universal precautions.				
2.	Assemble the pit and fissure procedure tray set up. (Note: In an actual office practice you may find some of these items are not used. Patient bib and 3-way syringe. Evacuator tips. Isolation materials: 2x2 gauze, cotton rolls, and cotton pellets. Rubber dam or Garmer clamps. Slow speed handpiece. Prophylaxis brush. Flour of pumice. Acid etch, brush, or syringe. Sealant material, sealant applicator. Curing light. Dental floss. Articulating paper. Fluoride.				
3.	Seat the patient and place patient bib.				
4.	Review patient's medical history. If patient is a minor, review medical history with the parent or guardian of the patient.				
5.	Explain the procedure to the patient.				
6.	Protective eyewear is placed on the patient.				
7.	Select and check the teeth that have been diagnosed for sealants by a dentist. ** A signed permission slip is mandatory.				
8.	Isolate the tooth by using a rubber dam or cotton rolls with or without a garmer clamp.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
9.	Pumice surface(s) of each tooth designated with a disposable prophylaxis brush on a slow speed handpiece.				
10.	Using the 3-way syringe, rinse the tooth thoroughly for 15 to 20 seconds.				
11.	Check the tooth surface, with an explorer, for any remaining pumice. Remove and rinse again if necessary.				
12.	Re-isolate the tooth as needed and dry thoroughly.				
13.	Apply acid etch the tooth for 20-60 seconds. The etch should be applied 2-3 millimeters beyond the area to be sealed. ** Deciduous teeth should be etched for up to 60 seconds				
14.	Rinse the tooth for 20-30 seconds using a steady stream of water or spray. Hold the HVE close to the tooth when rinsing off the acid etch.				
15.	Re-isolate tooth again (if needed) being careful not to contaminate it with saliva or other debris.				
16.	Dry tooth for 10-20 seconds and check etched surface for opaqueness prior to continuing the process.				
17.	Apply sealant material to the prepared pits and grooves of the tooth using the technique in which you were taught.				
18.	Activate polymerization with the curing light for up to 60 seconds.				
19.	Check completed application of the sealant with an explorer.				
20.	Re-apply sealant material to any area that did not fully seal or exhibits a 'bubble' or other defect. ** Adding more sealant material without re-etching is permissible if tooth remains uncontaminated.				
21.	If re-application is necessary, follow the same curing procedure.				
22.	Rinse tooth gently with water or a cotton pellet.				
23.	Remove isolation materials.				
24.	Check patient's occlusion with articulating paper.				
25.	Inform the patient if the occlusion needs to be adjusted.				
26.	Adjust occlusion as necessary with a finishing bur in the slow speed handpiece.				

	Tasks	Clinical / Laboratory		Clinical Examination	
		Pass	Fail	Pass	Fail
27.	Apply fluoride to the tooth that has been sealed.				
28.	Give post-operative instructions to the patient regarding the importance of evaluating the sealants every six months.				
29.	Give post-operative instructions to the patient regarding the importance of evaluating the sealants every six months.				
30.	The date is recorded.				
31.	The entry is written in ink.				
32.	Student signs record of services.				
33.	Instructor initials the record of services.				
Comments:					